

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

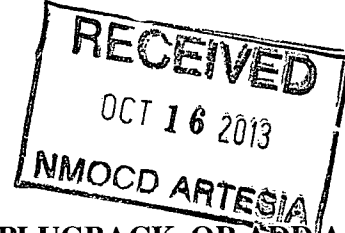
Form C-101  
Revised July 18, 2013

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505



APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address COG Operating LLC 2208 West Main Street Artesia, NM 88210		2. OGRID Number 229137
3. Property Name Myox 21 State Com		4. Well No 4H
5. Property Code 38521	6. API Number 30-015-41743	

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	21	25S	28E	P	190	South	380	East	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
A	16	25S	28E	A	330	North	380	East	Eddy

9. Pool Information

Red Bluff Bone Spring	Pool Name San Lorenzo; B.S.	Pool Code 50990
-----------------------	--------------------------------	--------------------

Additional Well Information

11. Work Type New Well	12. Well Type Oil	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 2959.2
16. Multiple N	17. Proposed Depth 18003'	18. Formation Bone Spring	19. Contractor	20. Spud Date 10/24/2013
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	17.5	13.375	48	400	415	
Intrmd	12.25	9.625	36	2430	825	
Pilot Hole Plug1	7.875	-	-	9480	100	9230
Pilot Hole Plug2	7.875	-	-	8300	340	7400
Production	7.875	5.5	17	18003	3010	2130

Casing/Cement Program: Additional Comments

Drill 17-1/2" hole to ~400' w/ fresh water spud mud. Run 13-3/8" 48# H40 STC casing to TD and cement to surface in one stage. Will use 1" tubing and Class C w/ 2% CaCl<sub>2</sub> to cement to surface, if necessary. Drill 12-1/4" hole to ~2430' with saturated brine water. Run 9-5/8" 36# J55 LTC casing to TD and cement to surface in one stage.  
Drill 7-7/8" pilot hole to 9480', log and plug back with 100 sx cement plug f/ 9230' - 9480' and 340 sx cement plug f/ 7400' - 8300'.  
Drill 7-7/8" curve and lateral to 18003' with cut brine. Run 5-1/2" 17# P110 LTC casing to TD and cement in one stage bringing TOC to 2130' (300' overlap).

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature: *Mayte Reyes*

Printed name: Mayte Reyes

Title: Regulatory Analyst

OIL CONSERVATION DIVISION

Approved By:

*T.C. Shepard*

Title:

**"Geologist"**

Approved Date:

*10/17/2013*

Expiration Date:

*10/17/2015*

E-mail Address: mreyes1@concho.com		
Date: 10/16/2013	Phone: 575-748-6945	Conditions of Approval Attached

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-0720

DISTRICT III  
1000 RIO BRAZOS RD., AZTEC, NM 87410  
Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV  
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
11885 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number 30-015- <b>41743</b>	Pool Code <b>50990</b>	Pool Name <b>San Lorenzo</b> <del>Red Bluff; Bone Spring</del>
Property Code <b>38521</b>	Property Name <b>MYOX 21 STATE COM</b>	Well Number <b>4H</b>
GRID No. 229137	Operator Name <b>COG OPERATING, LLC</b>	Elevation <b>2959.2</b>

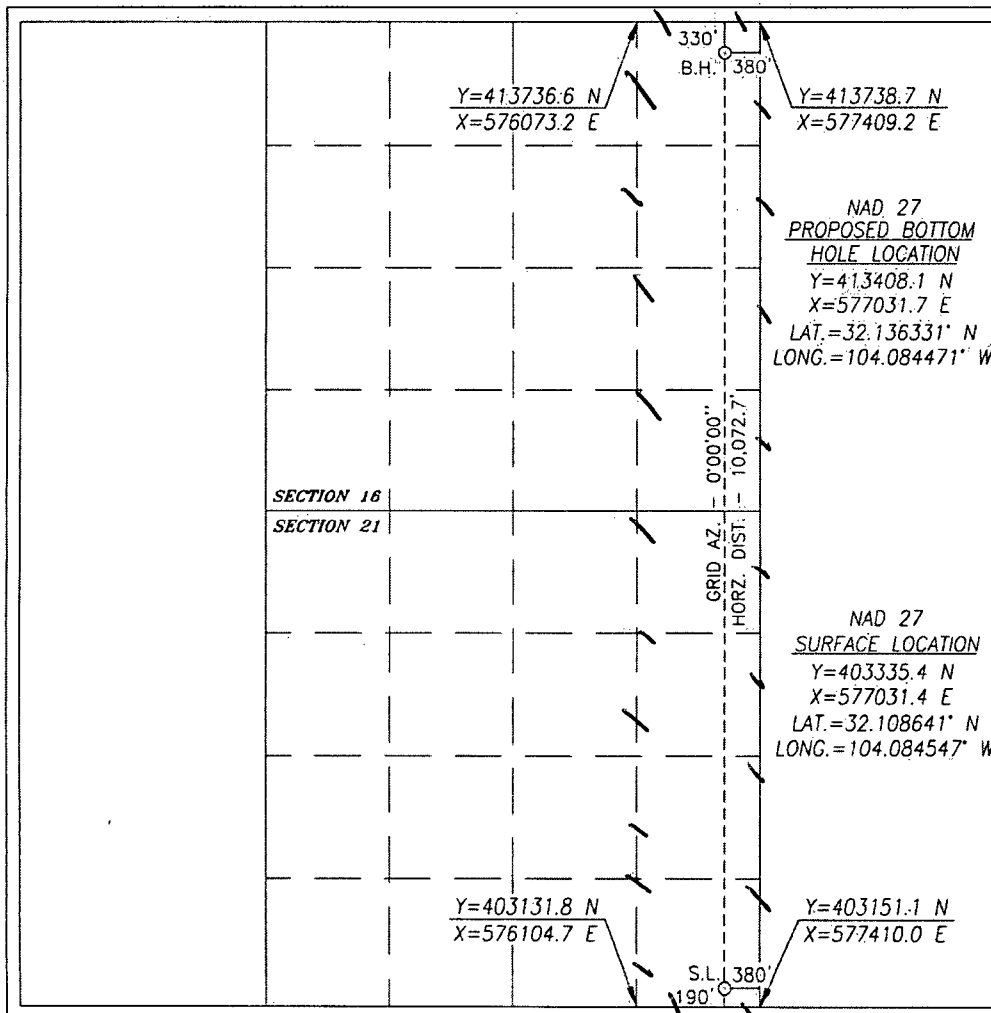
**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	21	25-S	28-E		190	SOUTH	380	EAST	EDDY

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	25-S	28-E		330	NORTH	380	EAST	EDDY
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



**OPERATOR CERTIFICATION**

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Melanie Parker* Date: *10/16/13*  
Printed Name: *Melanie Parker*  
E-mail Address: *mparker@concho.com*

**SURVEYOR CERTIFICATION**

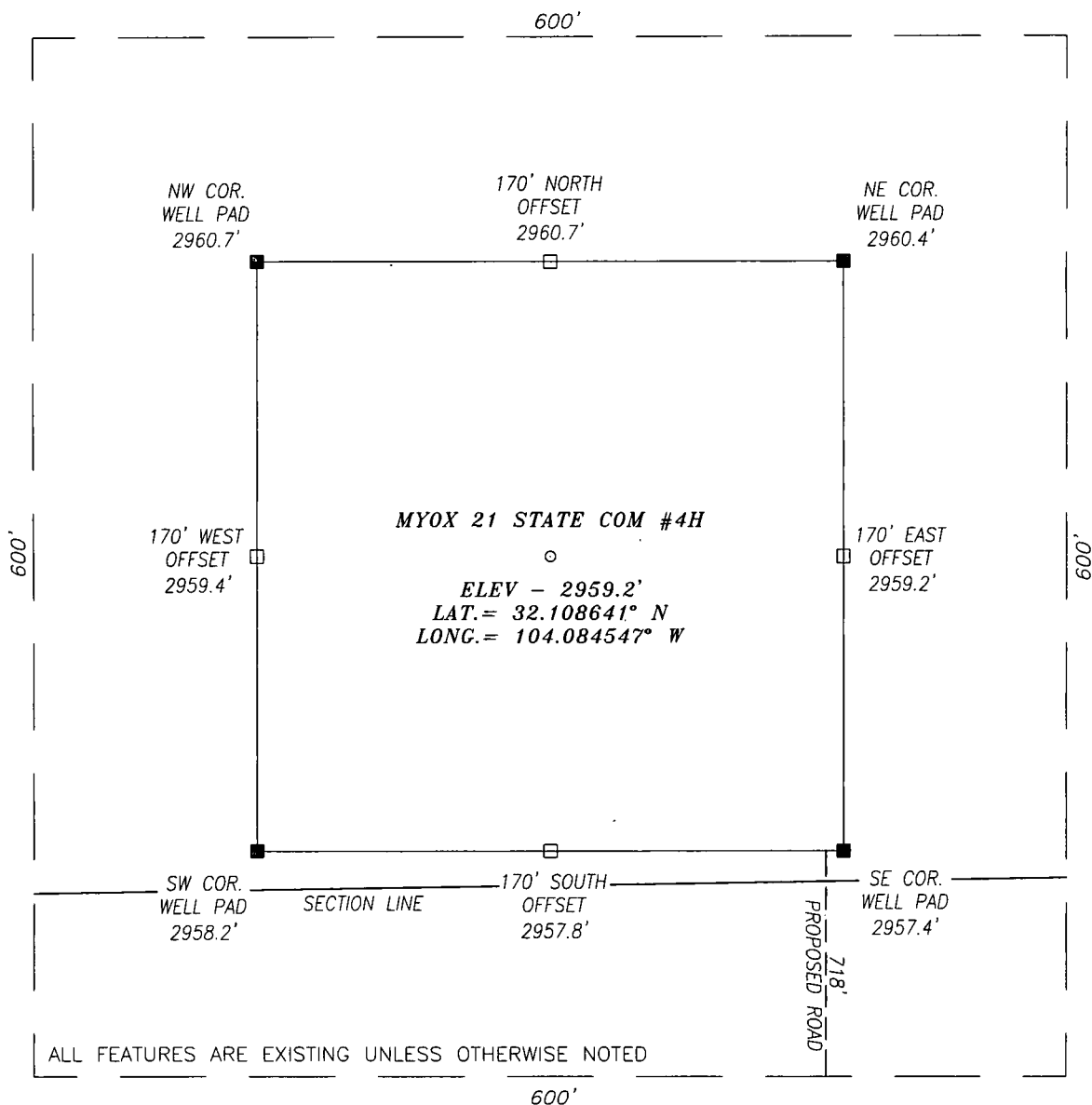
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MAY 16, 2013  
Date of Survey

Signature & Seal of Professional Surveyor

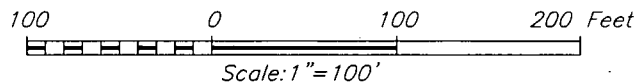
*Chad L. Harcrow* 5/31/13  
Certificate No: CHAD HARCROW 17777  
W.O. # 13-300 DRAWN BY: VD

SECTION 21, TOWNSHIP 25 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY NEW MEXICO



DIRECTIONS TO LOCATION

TRAVELING SOUTH ON 285 TURN RIGHT (WEST) APPROX. 0.9 MILE PAST MILE MARKER 9 ONTO A CALICHE RD AND GO APPROX 0.5 MILE; THEN TURN LEFT (SOUTHWEST) AND GO APPROX. 0.2 MILE AND PROPOSED WELL IS APPROX. 890 FEET NORTH.



HARCROW SURVEYING, LLC

1107 WATSON, ARTESIA, N.M. 88210  
PH: (575) 513-2570 FAX: (575) 746-2158  
chad\_harcrow77@yahoo.com



COG OPERATING, LLC

MYOX 21 STATE COM #4H WELL  
LOCATED 190 FEET FROM THE SOUTH LINE  
AND 380 FEET FROM THE EAST LINE OF SECTION 21,  
TOWNSHIP 25 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO

SURVEY DATE: 05/15/2013

PAGE: 1 OF 1

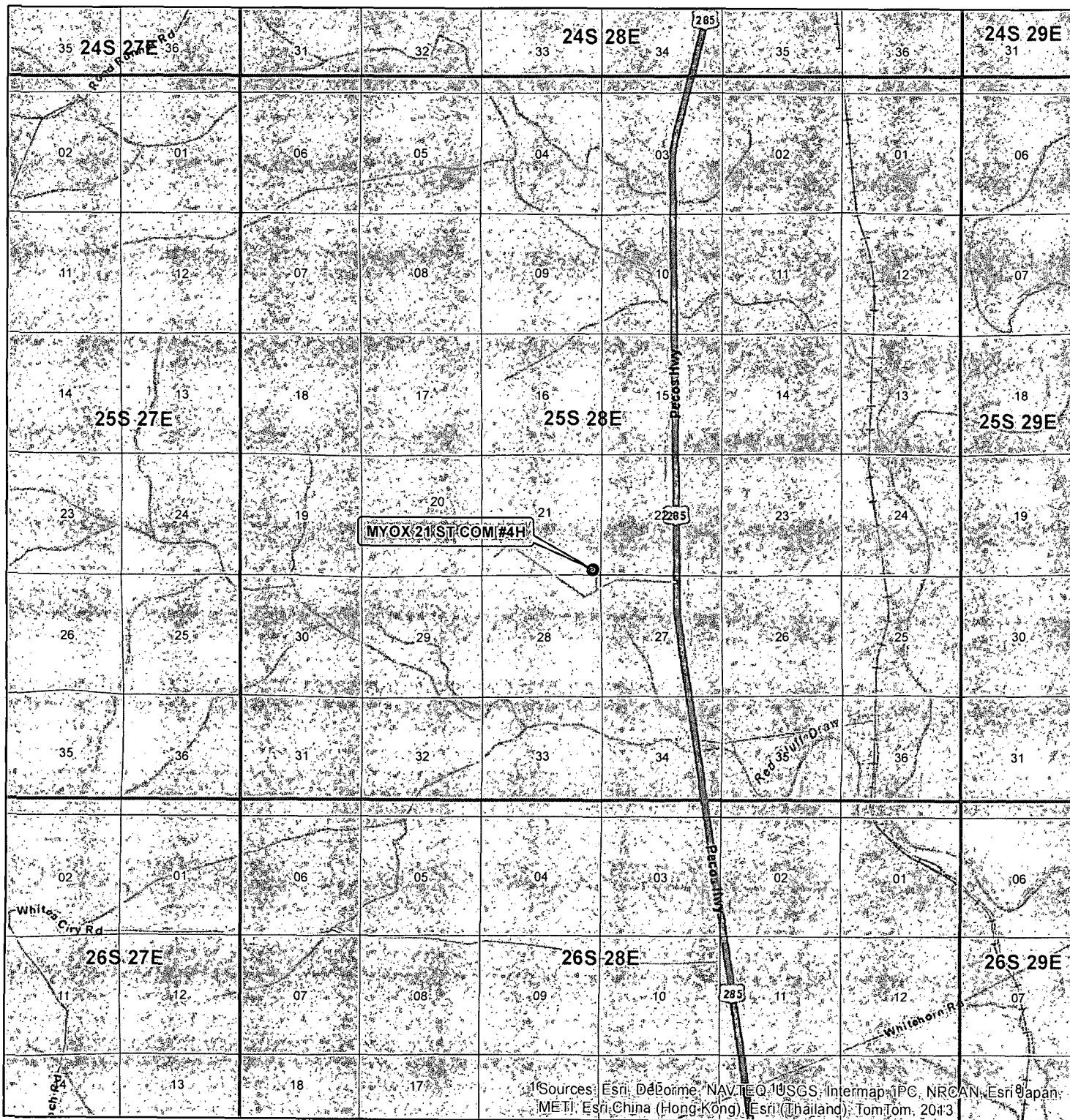
DRAFTING DATE: 05/21/2013

APPROVED BY: CH

DRAWN BY: VD

FILE: 13-297

# VICINITY MAP



SEC. 21, TWP. 25S, RGE. 28E  
 SURVEY: N.M.P.M.  
 COUNTY: EDDY STATE: NEW MEXICO  
 DESCRIPTION: MYOX 21 ST COM #4H  
 190' FSL, 380' FEL

ELEVATION: 2959.2'  
 OPERATOR: COG OPERATING LLC  
 LEASE: MYOX 21 ST COM

W.O. # 13-300



1 IN = 6,000 FT

0 0.5 1 1.5 2 MILES







HARCROW SURVEYING, LLC  
 1107 WATSON, ARTESIA N.M. 88210  
 PH: (575) 513-2570 FAX: (575) 746-2158  
 chad\_harcrow77@yahoo.com



MAP DATE: 5/21/2013

Topographic map showing contour lines, elevation points, and a proposed road. The map includes labels for 'MYOX 21ST COM #4H', 'PROPOSED ROAD', 'MILE MARKER 8', and 'Red'. A copyright notice at the bottom reads 'Copyright © 2011 National Geographic Society'.

W.O. # 13-300

 WELL  
 WELL PAD  
 MAIN ROAD  
 PROPOSED ROAD

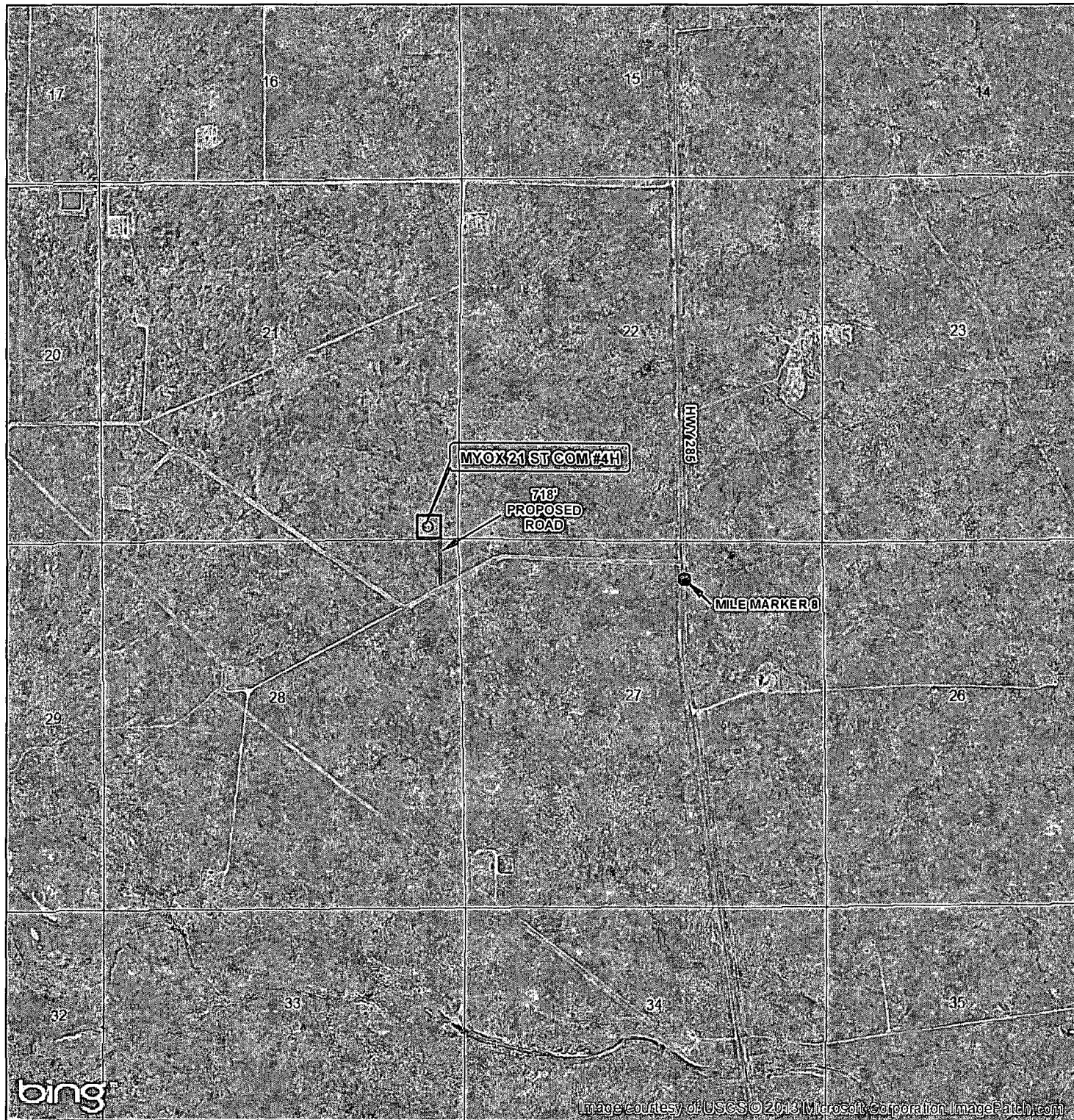
HARCROW SURVEYING, LLC  
1107 WATSON, ARTESIA N.M. 88210  
PH: (575) 513-2570 FAX: (575) 746-2158  
chad\_harcrow77@yahoo.com



MAP DATE: 5/21/2013



# LOCATION VERIFICATION MAP



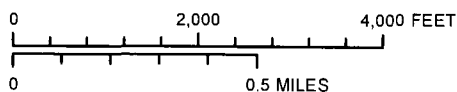
SEC. 21, TWP. 25S, RGE. 28E  
 SURVEY: N.M.P.M  
 COUNTY: EDDY STATE: NEW MEXICO  
 DESCRIPTION: MYOX 21 ST COM #4H  
 190' FSL, 380' FEL

ELEVATION: 2959.2'  
 OPERATOR: COG OPERATING LLC  
 LEASE: MYOX 21 ST COM

W.O. # 13-300



1 IN = 2,000 FT



- WELL
- WELL PAD
- MAIN ROAD
- - - PROPOSED ROAD

HARCROW SURVEYING, LLC  
 1107 WATSON, ARTESIA N.M. 88210  
 PH: (575) 513-2570 FAX: (575) 746-2158  
 chad\_harcrow77@yahoo.com



MAP DATE: 5/21/2013

## Permit Conditions of Approval

API: 30-015-41743

OCD Reviewer	Condition
CSHAPARD	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string